

The Society for Pennsylvania Archaeology, Inc Newsletter Spring 2007

President's Message

Over the past year the Society for Pennsylvania Archaeology has been a co-sponsor of two major events, the Pennsylvania Farm Show held in Harrisburg each year and *Exploring Pennsylvania's Native American Heritage* program held at The State Museum of Pennsylvania in Harrisburg. Both events gave me the opportunity to work with people from other organizations both in the planning and execution of these events. Not only did I have the above opportunity, but members of the SPA were also involved. At the 2007 Farm Show five members of the SPA helped man the booth. This was an increase of three over 2006. Manning the booth gives one the opportunity to interact with people of all ages who have a varying degree of interest in archaeology. My favorites are the young children because they could be the future archaeologists and it may just be that their visit to the archaeology booth at the Farm Show is what inspires them to become an archaeologist. At the *Exploring Pennsylvania's Native American Heritage* program in October 2006 five SPA chapters brought artifacts and information on their chapter excavations to display for the program attendees. These five chapters included Frances Dorrance Chapter #11, Forks of the Delaware Chapter #14, Westmoreland Archaeological Society Chapter #23, Cumberland Valley Chapter #27 and Conejohela Chapter #28. The displays were all informative and educational and were one way that our chapters can interact with the general public and keep them informed as to what we, the members of the SPA, are doing archaeologically across the state.

Other chapters are out there getting involved also. North Fork Chapter #29 holds an annual Archaeology Fair and Artifact Show while John Schrader Chapter #21 is involved

with educational activities surrounding Joanna Furnace. The French Creek Archaeological Society #26 is involved in various educational activities in their section of Pennsylvania as I am sure are Allegheny Chapter #1, Andaste Chapter #5, North Central Chapter #8, Somerset Chapter #20, Ohio Valley Chapter #22 and Bald Eagle Chapter #24.

As my presidential term comes to a close I would like to comment that the SPA has been a great organization with which to be involved. I would like to thank the SPA board members for their hard work over the last two years. We have some hardworking chapters out there and I'd like to thank them for all their efforts in educating the public as to what archaeology is and what archaeologists do. Keep up the good work! I know the Society will be in good hands as Paul Nevin steps into the presidential position and would like to wish him good luck during his two-year term. Thank you for the opportunity to serve as your President. Amanda Valko

Annual Meeting Banquet Speaker Announced

The speaker for this year's banquet will be Tim Messner of Temple University. His talk is entitled "More than meets the eye: starch grain analysis and its utility for understanding prehistoric plant use in Pennsylvania and beyond."

Starch grain analysis promises to open a whole new view on prehistoric subsistence. It's the 'next big thing' in studying diet, but the amazing thing is that this material can be found in many of the artifacts we've been collecting for decades. The topic fits well with the theme of the conference. Furthermore, Tim is one of the leading researchers in this field. It's a story of local boy makes it big. Philip A. Perazio, Program Chair

See the following related article:

One Hot Archaeological Find

Chili Peppers Spiced Up Life 6,100 Years Ago
By David Brown, Washington Post Staff Writer,
Friday, February 16, 2007; A01

Inhabitants of the New World had chili peppers and the makings of taco chips 6,100 years ago, according to new research that examined the bowl-scrappings of people sprinkled throughout Central America and the Amazon basin.

The findings described today in a 15-author report in the journal *Science* make the chili pepper the oldest spice in use in the Americas, and one of the oldest in the world.

The researchers believe further study may show that the fiery pod was used 1,000 years earlier than their current oldest specimen, as it shows evidence of having been domesticated, a process that would have taken time. If so, that would put chili peppers in the same league (although probably not the same millennium) as hoarier spices such as coriander, capers and fenugreek.

The chili pepper, however, makes up for its junior status with rapid spread and wild popularity. Within decades of European contact, the New World plant was carried across Europe and into Africa and Asia, adopted widely, and further altered through selective breeding.

Today, the chili pepper is an essential cooking ingredient in places as different as Hungary (where paprika is a national symbol), Ethiopia (where signature spice, berbere, is a mixture of chili powder and half a dozen other substances), and China (where entire cuisines are built around its heat).

In all seven New World sites where chili pepper residue was found, the researchers

also detected remnants of corn. That suggests the domestication of the two foods -- still intimately paired in Latin American cuisine -- may have gone hand in hand.

The study, led by Linda Perry of the Smithsonian Institution, does more than illuminate one aspect of early cooking. It provides details about early plant cultivation in South America, where agriculture emerged independent of its "discovery" in the Fertile Crescent of Mesopotamia.

Chili residue was found in both the Amazon basin and on the coast of Ecuador. Because the plants don't grow in the high, arid regions where advanced Andean cultures evolved, the domestication probably occurred in more primitive, tropical cultures, which then traded domesticated plants across the mountains.

"The usual idea is that the tropical lowlands were mostly on the receiving end, that they were not areas of innovation. Now our findings are beginning to cast doubt on that," said J. Scott Raymond, an archaeologist at the University of Calgary and co-author of the paper. Artifacts he excavated in western Ecuador contained chili residue.

The research also advances techniques in "archaeobiology," a discipline that fuses archaeology and, in this case, botany. Specifically, it shows that the study of microscopic starch granules stuck in the crevices of cooking implements can reveal foods that weren't thought to have enough starch in them to be traceable.

Peppers are in the botanical family Solanaceae, which includes tomatoes, another popular New World plant. A high priority now, Perry said, is to see if there are overlooked and still preserved starches from tomatoes in ancient implements.

Many plants have distinctive starch granules visible when dissolved in water and viewed

under a microscope. A scientist recognized in 1913 that they could be used to identify the presence of different species. But only recently have researchers discovered that starch could survive for thousands of years in the "microclimate" of tiny pits in ancient implements dug up from warm and wet environments, where other plant material had long ago rotted away.

"They are really tough little guys," Perry said.

She went to work in 2005 trying to identify a starch granule she saw in material provided by Raymond, who had been excavating a 6,100-year-old site in western Ecuador for many years. It clearly wasn't from any of the usual sources such as yams, potatoes or cassava.

Perry recalled hearing that chilies can cause gas and diarrhea in some people, and those are problems often blamed on undigested starches. This seemed odd, because peppers weren't thought to have starches.

"And that is when the light bulb went on. What if they do?" she said.

She went to the Smithsonian's storehouse of plant material in Suitland, Md., and retrieved a sample of wild chili. It included a small fruit -- a pepper. She rubbed it on a slide, added water and looked through the microscope. She saw tiny starch granules.

Next, she looked at samples of modern, domesticated chili peppers. Their granules were much larger and had a characteristic central depression. The mystery granule looked just like them.

Ultimately, she found traces of at least three different kinds of peppers, already domesticated, from seven sites.

It's impossible to identify with certainty the first spice ever sprinkled on a roasting haunch or thrown into a stew pot. But

Wendy L. Applequist, an ethnobotanist at the Missouri Botanical Garden, said capers have been found at 10,000-year-old sites in Iran and Iraq; coriander at an 8,500-year-old site in Israel; and fenugreek in Syria's Tell Aswad, which is 9,000 years old. Whether these were domesticated or wild is not known.

The Pennsylvania Archaeological Site Survey Files Update—submitted by Noel Strattan

Many of you have commented that the site information available on the Cultural Resources Geographic Information System (CRGIS) seems very incomplete. It is. There are many reasons for this, but one of the main reasons is that the site forms that were coded for the databases were old and incomplete or did not have the information in a form that was compatible with the database. This was mainly due to the fact that the site forms were very open-ended and did not tell you what information was needed for the database. That is changing.

New Site Recording Forms

The PHMC has developed a new, multi-page form that provides checkboxes and lists to make it easier to record your information in a way that will fit the database. Several SPA members tested and commented on the draft form and the final version will be posted on the PHMC website by April 1. It will be available as either a Word template, with expandable fields, that can be filled in on your computer before printing and as a straight Word document that can be printed and filled in by hand. The format also allows you to attach as many photos or drawings as you like, without limiting the space for these very useful forms of information. Although the new form involves more paper, testers found that it is easier to fill out than the old one. The use of tables with pre-established names for artifact, lithic, and feature types will make it easier to compare information

from various sites and will keep the CRGIS coders from needing to guess what the submitter is describing.

In addition, the new form separates the confidential information relating to site location and ownership and collectors from the information that describes the site itself. The confidential information will be stored in a separate location that will not be accessible to people using the PHMC search room.

Update Your Sites!

Another major reason that the information is incomplete is because the information is old. Site forms are usually submitted when a site is first discovered, so that the collector has a site number to use when cataloguing the collections. Even though you may go back to the site year after year and learn much more about the people who lived there, the information in the site file still reflects that first record. The new form can be used to update your information, too. You only need to add new numbers to the appropriate tables and send it in as an update. All collectors are encouraged to send updates at anytime, but now would be a good time to establish a new baseline on the new form.

To see the information currently available, visit the **ASK REGIS** section of the CRGIS. <http://crgis.state.pa.us>

**One of history's mysteries –
Where's the "fort" at Fort Hunter
Mansion?
The Commonwealth's Archaeology
Program investigates Fort Hunter**

During Archaeology Month 2006, the Commonwealth's Archaeology Program (CAP) investigated one of "*history's mysteries*," where is the "fort" at Fort Hunter? CAP conducted an archaeological testing program at Fort Hunter Mansion and Park, located five miles north of the

Capitol. The goal was to locate the remains of the French and Indian War "fort."

Fort Hunter was part of a chain of three forts built along the Susquehanna River by the British in the mid-1750s at the outset of the French and Indian War. The largest of these was Fort Augusta, located at the confluence of the North and West branches of the Susquehanna River at Sunbury. This was a massive military installation, with earthen walls over 700 feet long. The second fort was located at Halifax, about 20 miles north of Harrisburg. Based on historic documents, Fort Halifax was square with wooden walls or a stockade that measured 160 feet on a side.

Fort Hunter was designed as a supply fort. However, there are no verifiable accounts that anything more than a blockhouse was actually ever built, and the exact location of a stockaded fort has long been debated. There is a reference that the logs for the stockade had been cut, but there are no accounts of the posts ever being erected. The site is currently being interpreted as a 19th-20th-century manor and farm. Archaeological investigations conducted west of the mansion in the 1960s were negative.

Thanks to a grant from the Pennsylvania Historical and Museum Commission, Fort Hunter Mansion first contracted with Enviroscan, Inc. of Lancaster to conduct a remote sensing survey of the area where the fort supposedly existed. Enviroscan conducted a magnetic and ground penetrating radar survey that located subsurface remains or "anomalies" that may have represented evidence of the fort. However, these required an archaeological excavation to determine their exact nature. CAP archaeologists, assisted by a loyal group of volunteers and students, began investigations to verify or "ground truth" these remains in early September and worked for five weeks. The site was open to the public, and thousands of visitors viewed

the excavation and interacted with the archaeologists.

Initially, none of the anomalies test by CAP turned out to represent fort features. The field strategy was revised, and historic documents were used to re-prioritize the excavations. There are several references to the “commanding view of the Susquehanna River” from the fort. The current garden area, located northeast of the mansion, certainly fits this description. When this area was tested, amazingly, thousands of artifacts from the 1700s were recovered. These included nails, gunflints, in both English and French flint, pottery such as delftware, scratch blue stoneware, locally made redware, and military buttons. Remains of at least seven large posts, possibly a bake oven and other subsurface features that probably represent parts of the fort were also found. As an added bonus, there is also an extensive prehistoric component mainly dating to between 3000 and 4000 years ago but as early as 8500 years ago. Unfortunately, the excavation was only about 30 feet by 20 feet, and CAP has not been able to exactly determine the bounds of the fort. Analysis of the artifacts will take place this winter, and next fall, CAP plans on continuing this investigation during Archaeology Month. Submitted by Kurt Carr

Check out our web site at
PaArchaeology.state.pa.us
for pictures and more information

Jacob Grimm C-14 Award

SPA members who wish to submit
2007 Jacob Grimm C-14 Annual Award
applications should send them to:
James Herbstritt, Chairperson
Jacob Grimm Radiocarbon Award
Commonwealth Keystone Building
400 North St, 2nd Floor
Harrisburg, Pennsylvania 17120-0093

Success Story

Friends and Colleagues,
Today is the 138th anniversary of the birth of New Jersey archaeologist Prof. Max Schrabisch (March 1, 1869 – October 27, 1949).

Our campaign to get Max’s grave site marked has been a resounding success and I thank those members of the ASNJ, SPA, NYSAA, NYAC, PANYC, the Philadelphia Archaeological Forum, the NJ History List, and many other historical societies who contributed.

Max’s grave is now properly marked in the Ridgelawn Cemetery (255 Main Avenue), Clifton.

Congrats and kudos to all who helped respect the memory of this interesting archaeologist.

Charles A. Bello, M.A., RPA
19 Ledge Lane
Pipersville, Pennsylvania 18947

Call for Papers

Eastern States Archaeological Federation 74th Annual Meeting

Hosted by the Vermont Archaeological
Society

November 8-11, 2007

Double Tree Hotel

Burlington, VT

See: esaf-archaology.org or

vtarchaeology.org for details

Finding a Role for Archaeology Societies By Dean R. Snow

Reprinted from ASM-Ink Extracted from the Maine Archaeological Society Bulletin, Fall 2006

This seems like a good point at which to reflect on the ways in which state archeological societies have evolved over the last half-century. Fifty years ago serious archeology was done mainly by a very small number of university, college or museum professionals. State societies provided almost the only access to archeology available to most avocational archeologists. Moreover, in those lowtech days it was possible for avocationalists to do quality research or rescue threatened sites with little funding or specialized equipment. All of that has changed. To do acceptable archeological science today one needs institutional support and technical expertise that an earlier generation could not imagine. At the same time, cultural resource management, including government archeology, has grown into a huge new branch of professional archeology. By some estimates 70 percent of all new employment in archeology is in CRM. By my count there are 154 professional archeologists in Pennsylvania, and I am probably missing more than a few. There probably are not that many in Maine, but there are certainly many more than there were in 1966, when I was the Lone Ranger.

On the public side, books, magazines, museums and polished programs on cable television, all produced by another set of professionals, now meet the needs of most lay people wanting to know more about archeology. If doing archeology and presenting archeology have become the domains of professionals, where does that

leave organizations like the Maine Archaeological Society? The emerging new role for state societies surely must include stewardship. Protection of our dwindling archeological resources is not something that professional archeologists and law-enforcement people can do alone. Today archeological resources, like endangered species and other natural resources, are protected mainly by avocationalists who truly care about them. People used to shoot rare birds as easily as they looted archeological sites, but there has been an important sea change over the last half century. Most of us no longer need to possess something in order to love it. Avocational archeologists, like birdwatchers (and I am one of those too), have inherited the duties of watchdogs, local protectors of local resources. Large-scale looting is becoming a thing of the past, but collectors will continue to pick up arrowheads on plowed fields and on eroding banks, I suppose. In this country such finds legally belong to the landowners, whether they are public or private, but with or without landowner permission many people still take a finders-keepers approach to surface finds. That being the case, avocational societies have an enduring duty to help educate people to record basic information about the artifacts they pick up. Someday that small collection in a shoebox will be left to someone who did not experience the bonding that goes with discovery, someone for whom it is just a shoebox full of rocks. Too many such collections will end up in auction houses or in landfills if archeological societies do not help in the effort to preserve them.

Announcements

SAA Meeting--The Society for American Archaeology will hold its 72nd Annual Meeting April 25-29, 2007 in Austin, Texas. For details and registrations, go to: www.saa.org .

The Celebrity Luncheon Series

The luncheons are held at the Benetti Hotel & Conference Center in Wilkes-Barre. Richard Leakey is scheduled for Thursday, May 10th, 2007. For ticket information go to the web site www.celebrityluncheons.org.

Educational Opportunities:

Crow Canyon Archaeological Center at www.crowcanyon.org

The Franklin Institute in Philadelphia and the National Geographic Society presents: King Tut

February 3 to September 30, 2007.
Exhibit information at www.kingtut.org

Jobs

United States Department of the Interior, Bureau of Land Management. View positions of interest at the Federal USA Jobs website: www.usajobs.opm.gov

Annual Chapter Reporting Requirements

Annual Chapter report forms have been mailed or emailed to the individual chapters. This report details chapter activities for the previous year (2006). This report is a chapter obligation under the SPA constitution. Forms are available to download from the SPA website. If you have questions, please contact the Secretary.

All SPA chapters are required to report **chapter officers** to the Secretary **annually**. This report is necessary for maintaining current contact information for all chapters. Please report officers even if there has not been an election or change of positions in your chapter. Please include addresses, phone numbers and email addresses if possible.

Eastern States Archaeological Federation

Membership: ESAF will donate 20% of the membership fee to the Society for Pennsylvania Archaeology, Inc. if dues are paid through the SPA. Membership includes Archaeology of Eastern North America (AENA), and informational announcements throughout the year.

Fees are: \$30.00 Individual membership and \$40.00 Institutional. For postage to foreign countries add \$5.00. Please make checks payable to Treasurer, SPA. Foreign Checks must be in US funds or drawn on a US bank. Send to: Society for Pennsylvania Archaeology, Inc., P.O. Box 10287, Pittsburgh, PA 15232-0287

Nominations for SPA Officers 2007-2009 two-year terms

President elect: Paul Nevin

First Vice President: Brian Fritz

Second Vice President:

Treasurer: Paul Cowin

Secretary: Judy Duritsa

Directors:

Two positions, six-year terms

**John Sites
Noel Strattan**

Elections will be held at Annual Meeting. Only members in good standing are eligible to vote.

